



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,366	10/22/2003	Robert J. Zander	0301A-000041	1400
27572	7590	12/09/2004	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			KUHN, ALLAN R	
			ART UNIT	PAPER NUMBER
			1732	

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/691,366

Applicant(s)

ZANDER ET AL.

Examiner

Allan Kuhns

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 29 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 and 28-37 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-19 and 22 is/are allowed.
- 6) ☒ Claim(s) 12, 14-16, 20, 21, 23, 26 and 27 is/are rejected.
- 7) ☒ Claim(s) 13, 24, 25, 38 and 39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1732

1. This application contains claims 1-11 and 28-37 drawn to an invention nonelected with traverse in the reply filed on May 28, 2004. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 12, 14-16, 20, 21, 23, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Angell, Jr. (3,436,446) in view of Brachman (3,940,467).

Angell, Jr. discloses the basic claimed method for forming components including (1) mixing a combination having a polymeric material resin and a blowing agent, (2) heating the combination after the mixing step to form a liquefied combination (note that column 6, lines 13-15 teaches the mixing of blowing agent and polymer prior to their introduction into an extruder), (3) pressurizing the liquefied combination to prevent substantial expansion of the liquefied combination prior to injection, and (4) injecting the liquefied combination into the mold to operably form a component. Angell, Jr. state at column 9, line 36 that a mold at room temperature is satisfactory but appear not to teach actively cooling the mold. But Brachman at column 7, lines 39-41 teach such cooling. It would have been obvious to one of ordinary skill in the art to incorporate this teaching of Brachman into the method of Angell, Jr. in order to more accurately control the temperature of the mold cavity surface and thus the cooling of the resin. The

Art Unit: 1732

examiner takes Official Notice that it is known that foam bodies possess energy absorbing characteristics at least for the reason that such foam bodies have voids in their structure. Using the component in a vehicle is a statement of an intended use for an article rather than a manipulative step used to distinguish "method" claims over prior art.

Brachman teaches a temperature within the range of claims 14 and 23 and the use of water, as in claim 16, and suggests the use of a continuous coolant flow, as in claim 15, at column 7, lines 39-41. Angell, Jr. suggests controlling temperature, pressure and injection rate (the latter two by using ram or piston 11), as in claim 20. One of ordinary skill in the art would have recognized that the mold cavity thickness correlates to product wall thickness, as in claim 21 and would have adjusted cavity thickness to meet product specifications. Angell, Jr. suggests cycle times within the ranges of claims 26-27 with the disclosure at column 8, lines 54-59.

4. Claims 17-19 and 22 are allowed.

5. Claims 13, 24, 38 and 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Applicants' arguments filed September 29, 2004 have been fully considered but they are not persuasive. Applicants' arguments concerning heating after a mixing step are considered to be moot by the examiner based on the revised ground of rejection introduced in this Office action. It is believed that the examiner has responded to arguments concerning certain dependent claims by only objecting to those claims.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Kuhns whose telephone number is (571) 272-1202. The examiner can normally be reached on Monday to Thursday from 7:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni, can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

Art Unit: 1732

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Allen R. Kuhns

ALLAN R. KUHNS
PRIMARY EXAMINER AU 1732

12-7-04